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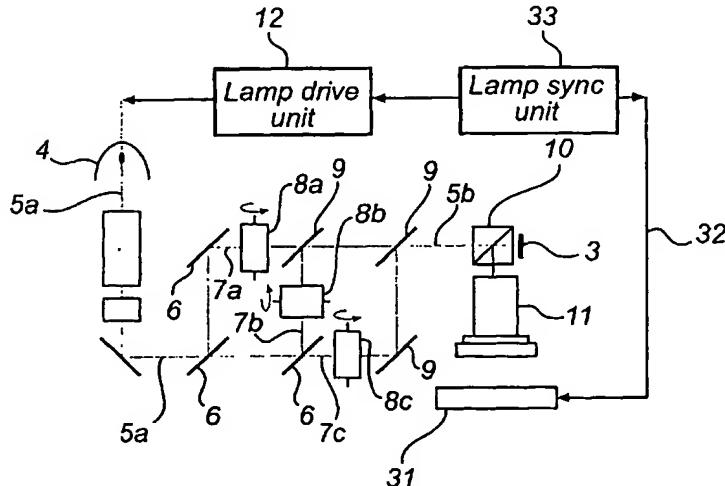
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Declaration under Rule 4.17:

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[Continued on next page]

(54) Title: COMPENSATION OF LIGHT SOURCE INTENSITY PULSE IN SCROLLING COLOUR TYPE PROJECTION SYSTEM



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(57) Abstract: A scrolling colour projection system comprising a lamp (4) with a pulsed drive current (20) and a colour scanner (6, 8a, 8b, 8c, 9) for generating a light beam (5b) with a plurality of scrolling colour fields, which is arranged to illuminate a display device (3) to produce a projection of an image generated by the display device. The system further includes a filtering element (31) arranged in the light path between the lamp and the projected image, and the transmission of the filtering element (31) is synchronized with the lamp current so as to cancel an intensity peak in the lamp flux. The filtering element thus effectively removes the impact of the current pulse on the light intensity, resulting in a constant intensity in the projected image, and avoiding any interference patterns.

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PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
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INTERNATIONAL SEARCH REPORT

Internal Application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N 7/31

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	WO 03 067897 A (VAN DEN WILDENBERG HENRICUS W ;LUERKENS PETER (NL); DE VAAN ADRIAN) 14 August 2003 (2003-08-14) the whole document ---	1-5
A	US 6 400 511 B2 (SMITS WILLEM HENDRIK ET AL) 4 June 2002 (2002-06-04) the whole document ---	1-4, 6, 7
A	US 4 443 696 A (TABOADA JOHN) 17 April 1984 (1984-04-17) abstract; figure 1 ---	
A	US 5 532 763 A (OTTO DETLEV ET AL) 2 July 1996 (1996-07-02) the whole document -----	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 03067897	A 14-08-2003	WO 03067897 A1	14-08-2003
US 6400511	B2 20-09-2001	WO 0149041 A1 EP 1157563 A1 JP 2003518643 T TW 519832 B US 2001022692 A1	05-07-2001 28-11-2001 10-06-2003 01-02-2003 20-09-2001
US 4443696	A 17-04-1984	NONE	
US 5532763	A 02-07-1996	US 5608467 A US 5410370 A US 5548347 A US 5528318 A US 5508738 A US 5416514 A CN 1062819 A , B DE 69125125 D1 DE 69125125 T2 EP 0492721 A2 JP 3352100 B2 JP 4316296 A KR 223724 B1	04-03-1997 25-04-1995 20-08-1996 18-06-1996 16-04-1996 16-05-1995 15-07-1992 17-04-1997 21-08-1997 01-07-1992 03-12-2002 06-11-1992 15-10-1999